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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,565	10/12/2001	Kenneth Douros	29248/AP01952	1453

4743 7590 08/22/2002

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EXAMINER

MARC COLEMAN, MARTHE Y

ART UNIT PAPER NUMBER

3661

DATE MAILED: 08/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,565

Applicant(s)

DOUROS ET AL.

Examiner

Marthe Y Marc-Coleman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is a first office action in response to Application No. 09/976,565 filed on October 12, 2001 in which claims 1-19 are presented for examination.

Claims Renumbering

2. Since there is not a claim #9 in the present application, claims 10-20 are renumbered as 9-19.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by ENHSSON PN (WO 92/03803).

In regard to claim 1, Enhsson discloses a method of informing a vehicle operator to improve the operator's performance, the method comprising the steps of:

- receiving vehicle operating data from the vehicle relating to the vehicle operating condition (see page 7 and page 8 lines 22-26);
- monitoring an interior portion of the vehicle and receiving operator activity data from the interior portion of the vehicle relating to activities of the operator within the interior portion (see page 6 lines 14-22);

- receiving vehicle environment data from the environment external to the vehicle (see col. 6 lines 23-33);
- monitoring the vehicle operator and receiving operator condition data relating to a condition of the vehicle operator (see col. 7 lines 1-19);
- estimating an operator cognitive load (see page 7); and
- prioritizing vehicle information based upon the operator cognitive load for selectively informing the operator of the vehicle information (see page 7).

In regard to claim 9, Enhsson discloses a method of providing information to an operator of a vehicle comprising:

- generating a master condition list, the master condition list being a fusion of sensor data within the vehicle (see page 8 lines 22-26 and Fig. 1);
- determining an operating situation of the vehicle based on the master condition list (see pages 7-8);
- prioritizing information presented to the operator based upon the operating condition (see page 7).

In regard to claim 11, Enhsson discloses an apparatus for providing information to an operator of a vehicle comprising:

- a sensor fusion module, the sensor fusion module being couples to a vehicle condition sensor, a vehicle exterior sensor, an operator condition sensor and an operator activity sensor respectively providing to the

sensor fusion module vehicle condition data, vehicle environment data, operator condition data and operator activity data, the sensor fusion module operable to provide a master condition list based on the data received by the sensor fusion module (see page 8 lines 22-26 and Fig. 1);

- a response selector coupled to the sensor fusion module being operable to determine a current operating condition based upon the master condition list and to assess an operator action in response to the current operating condition to provide an operator performance assessment values based upon the master condition list and the operator action (see pages 7-8);
- an action generator coupled to the response selector to generate an indication (see pages 7-9);
- an operator interface coupled to the action generator to convey the indication to the operator (see pages 7-9).

In regard to claim 2, Enhsson discloses that the step of estimating an operator cognitive load comprises synthesizing and summarizing the vehicle operating data, the operator activity data, the environment data and the operator condition data (see Fig. 1 and page 8 lines 22-26).

In regard to claim 3, Enhsson discloses that the step of synthesizing and summarizing comprises providing a sensor fusion apparatus within the vehicle (see page 8 lines 22-26 and Fig. 1).

In regard to claims 4 and 10, Enhsson discloses that the step of synthesizing and summarizing comprises determining **at least one of**: a problem condition, a problem correction, a problem exacerbation, an operator task requirement, an agent task requirement, completion of an operator task, completion of an agent task and a situation change (see pages 7 and 8).

In regard to claim 5, Enhsson discloses that the step or prioritizing vehicle information comprises determining existence of an operator task and requesting operator response to the operator task (see page 7).

In regard to claim 6, Enhsson discloses that the vehicle information comprises either one of an alert and a warning (see page 8 line 22-page 9 line 7).

In regard to claims 7 and 8, Enhsson discloses that the method further comprises receiving operator history data and preference data and wherein the step of estimating operator cognitive load comprises estimating operator cognitive load based in part on the operator history and preference (see pages 7-8).

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In regard to claim 12, Enhsson discloses that the vehicle condition comprises **(at least one of)** vehicle speed, brake application (see page 6 lines 14-27).

In regard to claim 13, Enhsson discloses that the operator activity data comprise usage data relating driving control (see page 7).

In regard to claim 14, Enhsson discloses that the operator condition data comprises distraction (see abstract).

In regard to claim 15, Enhsson discloses that the vehicle environment data comprises data relating to traffic condition or road condition (see page 6 lines 14-27).

In regard to claims 16-19, Enhsson discloses that the indication comprises an audio indication, a prerecorded message, prioritized information , conveying an operator task (see pages 7-9).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marthe Y Marc-Coleman whose telephone number is (703) 305-4970. The examiner can normally be reached on Monday-Thursday from 9:30 AM - 8:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William A Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

Patent Examiner

Marthe Y. Marc-Coleman

Marthe Marc-Coleman

August 10, 2002

DETAILED ACTION

1. This is a first office action in response to Application No. 09/976,565 filed on October 12, 2001 in which claims 1-19 are presented for examination.
2. The 1449 form submitted 5/20/02 have been received, however the references listed in the Information Disclosure Statement are missing. Applicant is kindly asked to resubmit the following references:
 - JP-10-313359
 - REMBOSKI ET AL., "Driver Performance Improvement through the Driver Advocate: A research initiative toward Automotive Safety", SAE Technical Series, October 16-18, 1999, 12 pages., SAE International.

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- an action generator coupled to the response selector to generate an indication (see pages 7-9);
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Patent Examiner

Marthe J. Marc-Coleman

Marthe Marc-Coleman

August 9, 2002